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Conference Abstract

Integrated Landscape Assessment and Monitoring (ILAM): A cost-effective approach towards informed decision-making for natural resources management

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Abstract

As the world strives towards achieving Sustainable Development Goals, development planners both at national and local levels have now come to understand the importance of informed decision-making. Natural resources management is one of the areas where careful planning is required to ensure sustainable use of and maximum benefit from the services we get from ecosystems.

In developing countries, the scarcity of resources (both in terms of funding and skills) constitutes the main hindrance to the generation of accurate and timely data and information that would guide planning and implementation of development strategies. As a result, decisions are taken on an ad-hoc basis and without possibility of appreciating the long-term effect of these decisions.

In that regard, Albertine Rift Conservation Society (ARCOS) has developed a participatory and cost-effective framework to monitor the status and trends of biodiversity and ecosystem services at the landscape level and to assess the socio-economic conditions that affect them.

The approach termed “Integrated Landscape Assessment and Monitoring – ILAM” uses the Driver-Pressure-State-Impact-Response model and applies a simple indicators framework that allows teams to collect needed data in a rapid and cost-effective way. Burkhard and Müller (2008)

This approach is flexible enough to be adaptable to the available time and funding resources and is therefore very suitable to be applied in the context of the developing world including east-African countries. This flexibility ranges from the use GIS and remote sensing techniques combined with thorough biodiversity field surveys to simple rapid assessment of key indicators using smaller teams and for short periods of time in the field.

Since 2013, ARCOS has been biennially conducting ILAM studies in its five focal landscapes in Rwanda, Uganda and Burundi and the results have influenced major decisions such as the designation of at least two wetlands as Ramsar sites and the upgrade of one forest as a national park.

In addition to this, other planning processes have been informed by the results of these studies, such as the process to develop the new Rwandan National Strategy for Transformation for 2017–2024 and the development of the districts’ strategic plans for 2018–2024.

Currently the biodiversity data generated through these studies is being published by Global Biodiversity Information Facility (GBIF) for wider access by researchers and educators in the region and a portal, the ARCOS Biodiversity Information Management System (ARBIMS), has been established to facilitate sharing of data and information to guide planning and decision-making in the region.

Keywords

informed decision making, integrated natural resources management, ecosystem services, rapid biodiversity assessment, Albertine rift region

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References

- Burkhard B, Müller F (2008) Drivers-Pressure-State-Impact-Response. https://www.researchgate.net/publication/271964191_Drivers-Pressure-State-Impact-Response. Accessed on: 2018-2-01.